

Options

Where Do We Put the Salt?

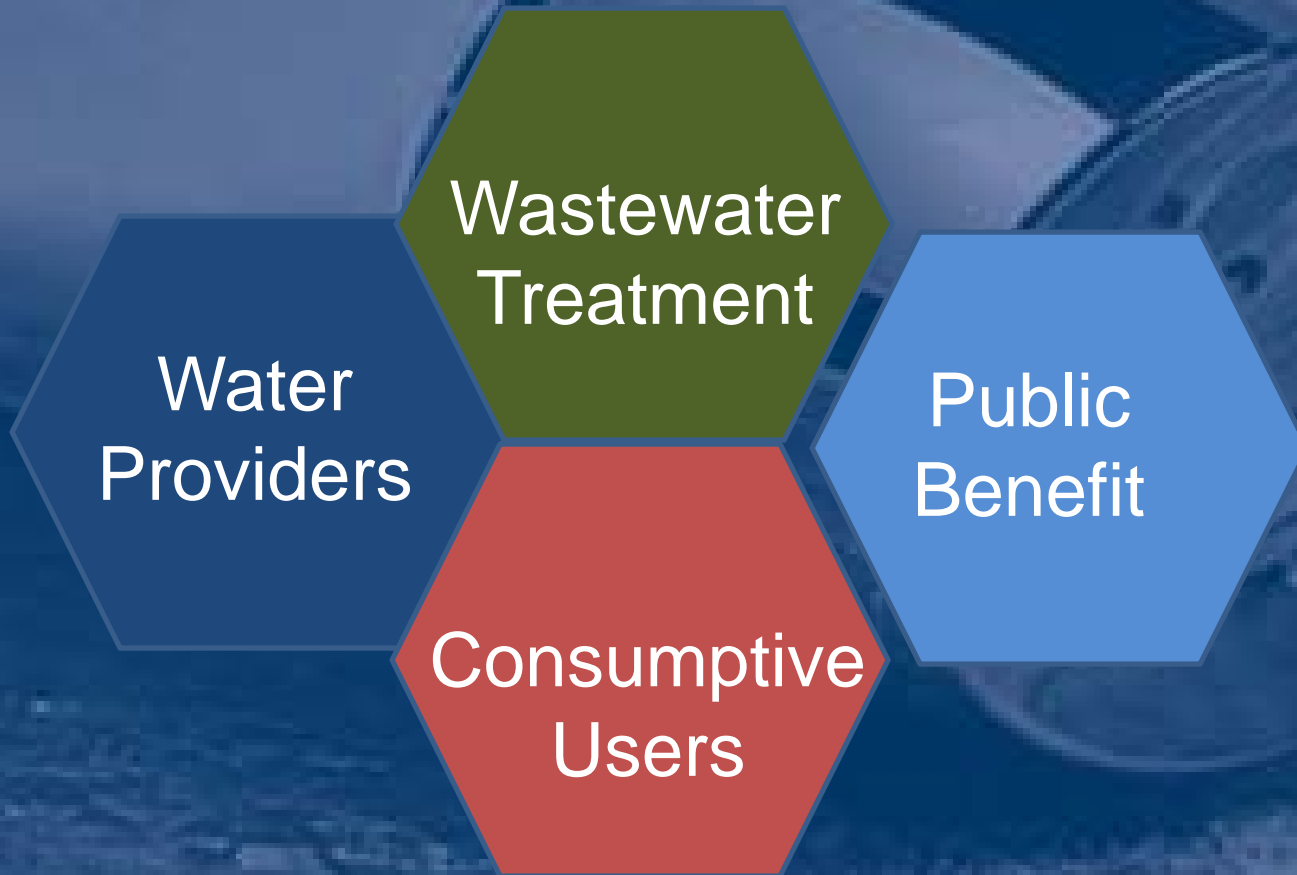


Salt Accumulation in Central Valley

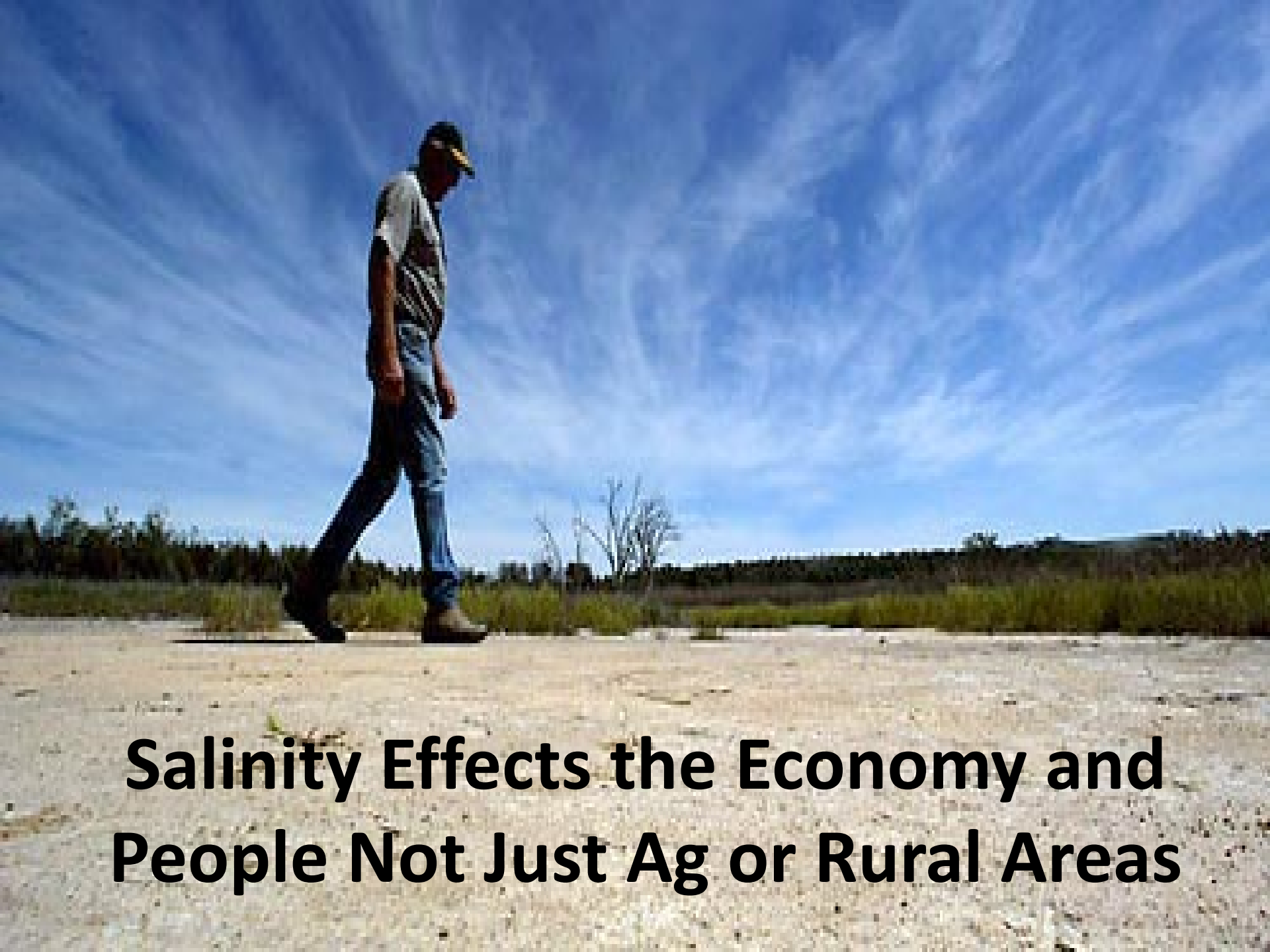
- Recent analysis indicate greater than 15.5 million tons per year of salt are brought into or mobilized in the Central Valley
- By 2030 this will increase by over 1 million tons per year
- Impacts will result in over \$1Billion per year in 2030



Water/Salinity Players



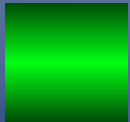
All must be engaged in the solutions



**Salinity Effects the Economy and
People Not Just Ag or Rural Areas**

Which person is not a candidate for president in 2008?

① Hillary Clinton



8%

② Barack Obama

0%

③ Arnold Schwarzenegger



92%

④ John McCain

0%



Who do you think will be the next president?

① Hillary Clinton



② Barack Obama



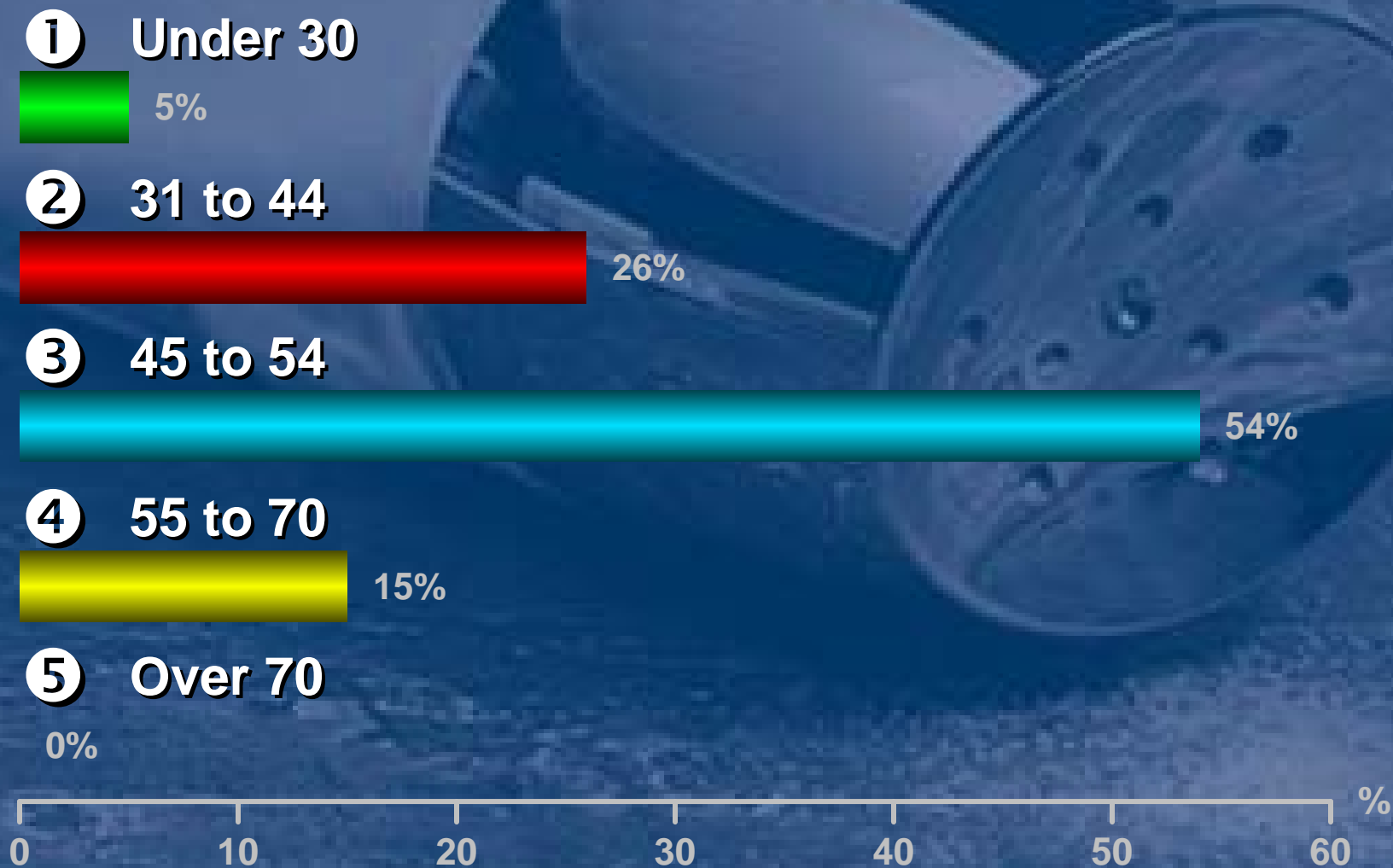
③ John McCain



④ Mickey Mouse



What is your current age?



In what area do you work?

① Government Local



② Government State or Federal



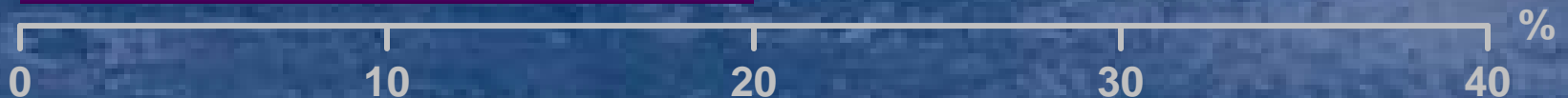
③ Agriculture



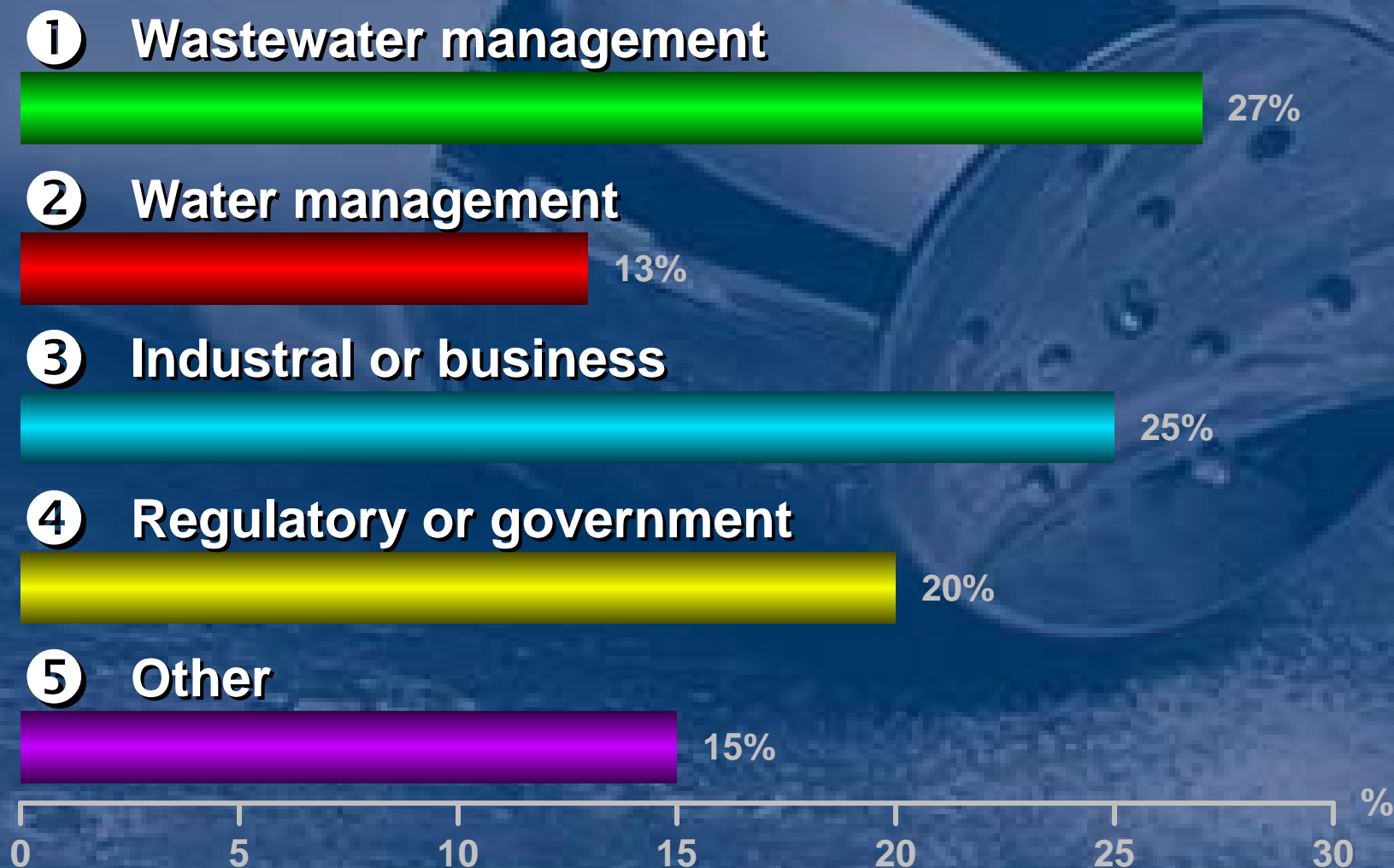
④ Manufacturing/Business



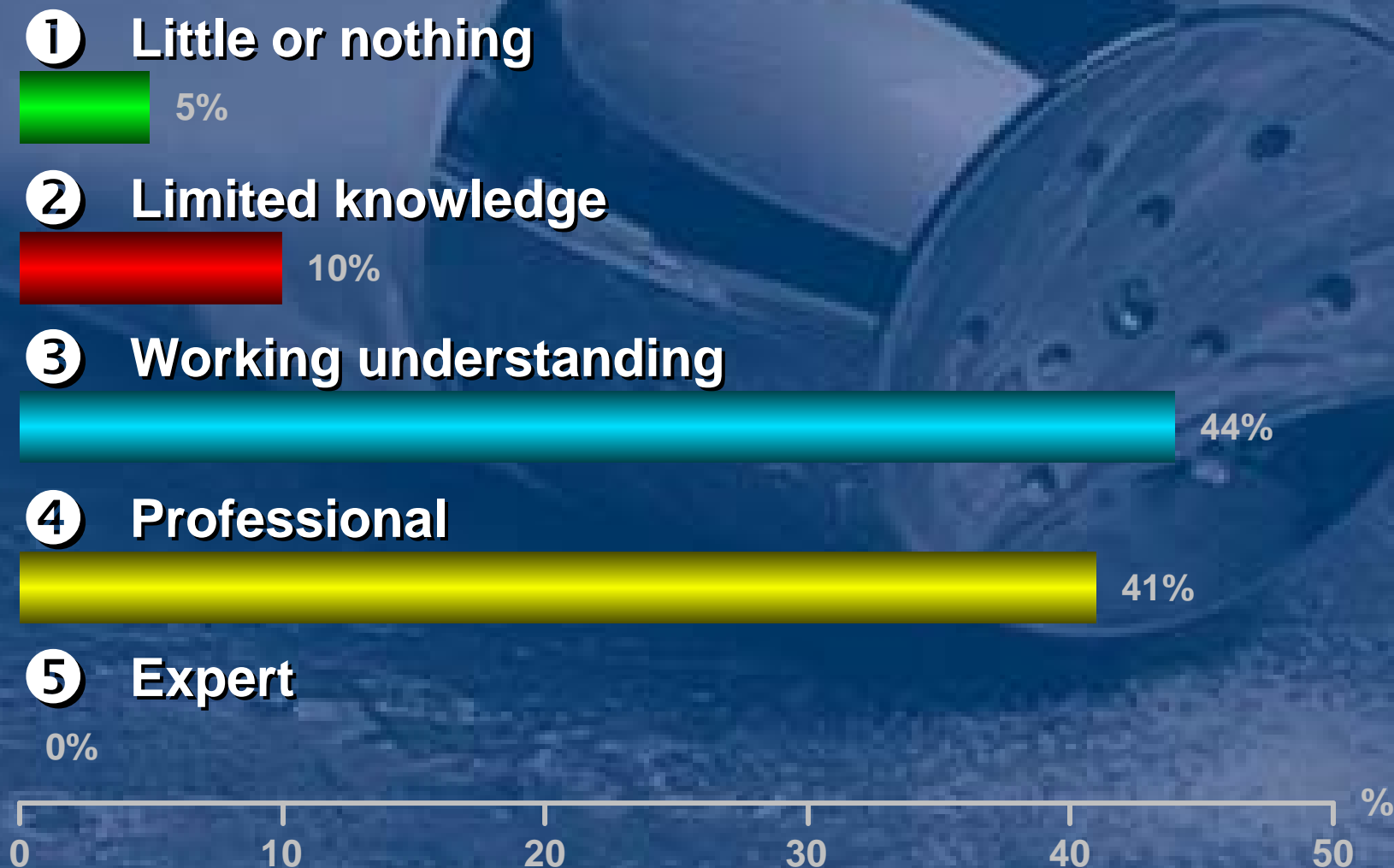
⑤ Other



What role do you serve related to salinity?



What did you know about salinity before today?





Which salt management option do you know the most about?

① Brine lines



8%

② Reverse osmosis



46%

③ On farm management



10%

④ Deep well injection

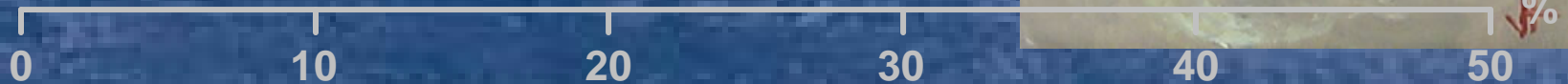


3%

⑤ Evaporation/precipitation



33%



Options

- Stack it up in piles?
- Give it to your relatives who visit to take home?
- How about some creative ideas you think are more likely?

Brine lines are NOT used for?

❶ Export of salt from a basin



3%

❷ Industrial brine management



18%

❸ Regional programs



13%

❹ Improving drinking water quality

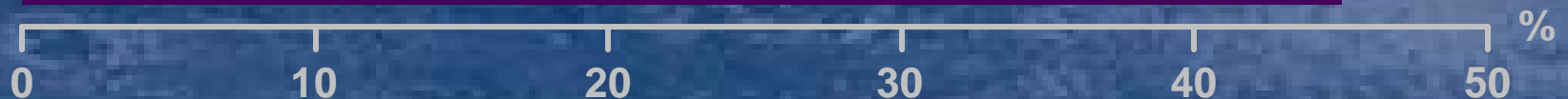


21%

❺ Disposal of untreated Ag drainage



45%



Which statement is NOT true about reverse osmosis treatment

① Uses electricity



② Requires further brine management



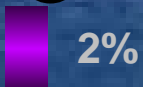
③ Is exotic technology



④ Depends on the water source



⑤ May be costly



Which is NOT true about On-farm water management and reuse?

① Reuses water more than once

0%

② Moves from higher value to lower value crops

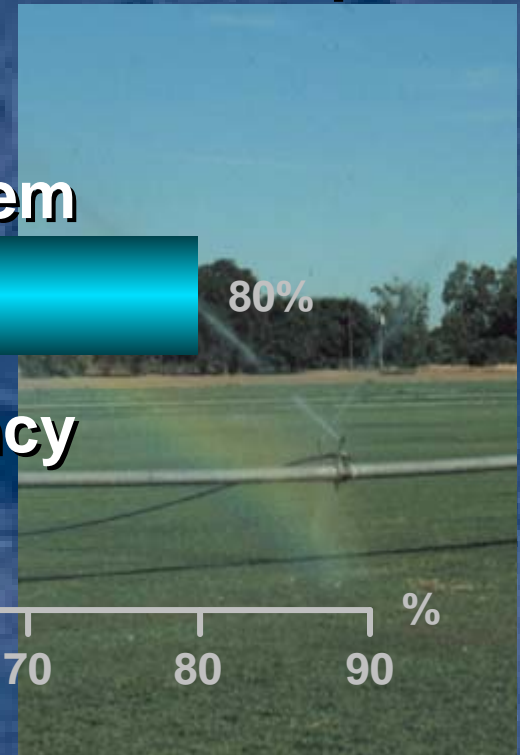
15%

③ Eliminates the salt from the system

80%

④ Can provide added water efficiency

5%



Which statement is correct about salt storage and regional distributed management

1 Could be done faster than basin wide solutions



3%

2 Could allow regional economic development



3%

3 May facilitate material reuse and marketing

0%

4 Requires leaders in each area or region



3%

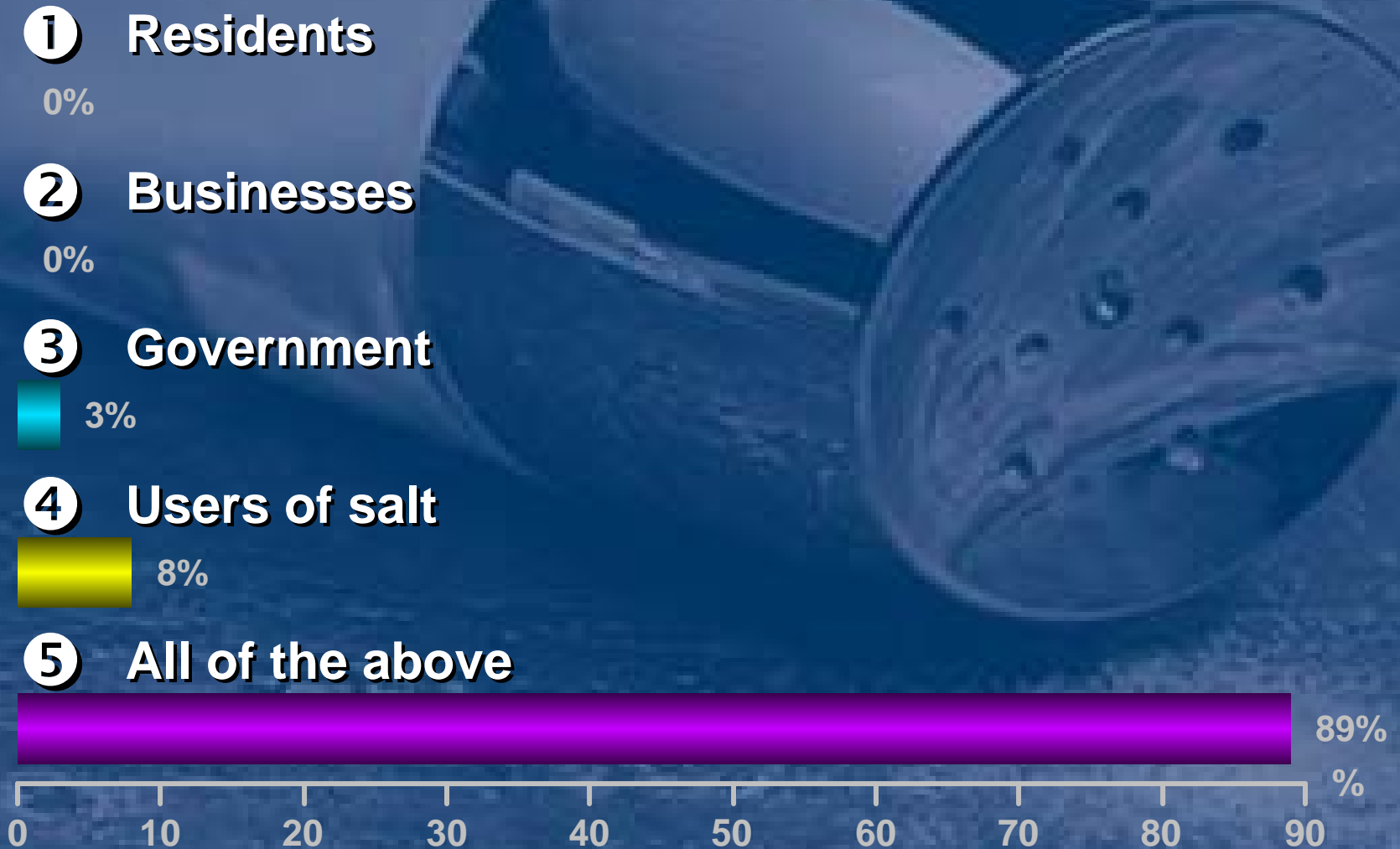
5 All of the above



91%



Who do you think should pay to manage salts?



Which is most true about drainage as it has been studied in the valley

① Related to agricultural irrigation



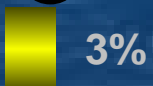
② Complicated by other non-salt constituents

0%

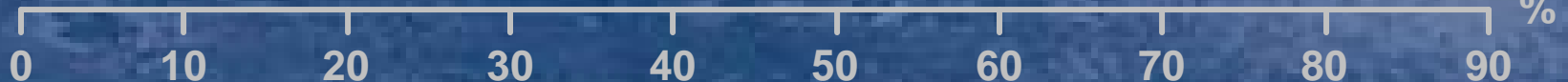
③ Not completed leaving much salt in the valley

0%

④ Complicated by political issues



⑤ All of the above



Deep well injection places concentrated brine below the active aquifer and is commonly used for?

① Wastewater



② Metal plating wastes

0%

③ Oil field brine



④ Toxic waste

0%



Growth will make salt management

① Easier



15%

② Harder

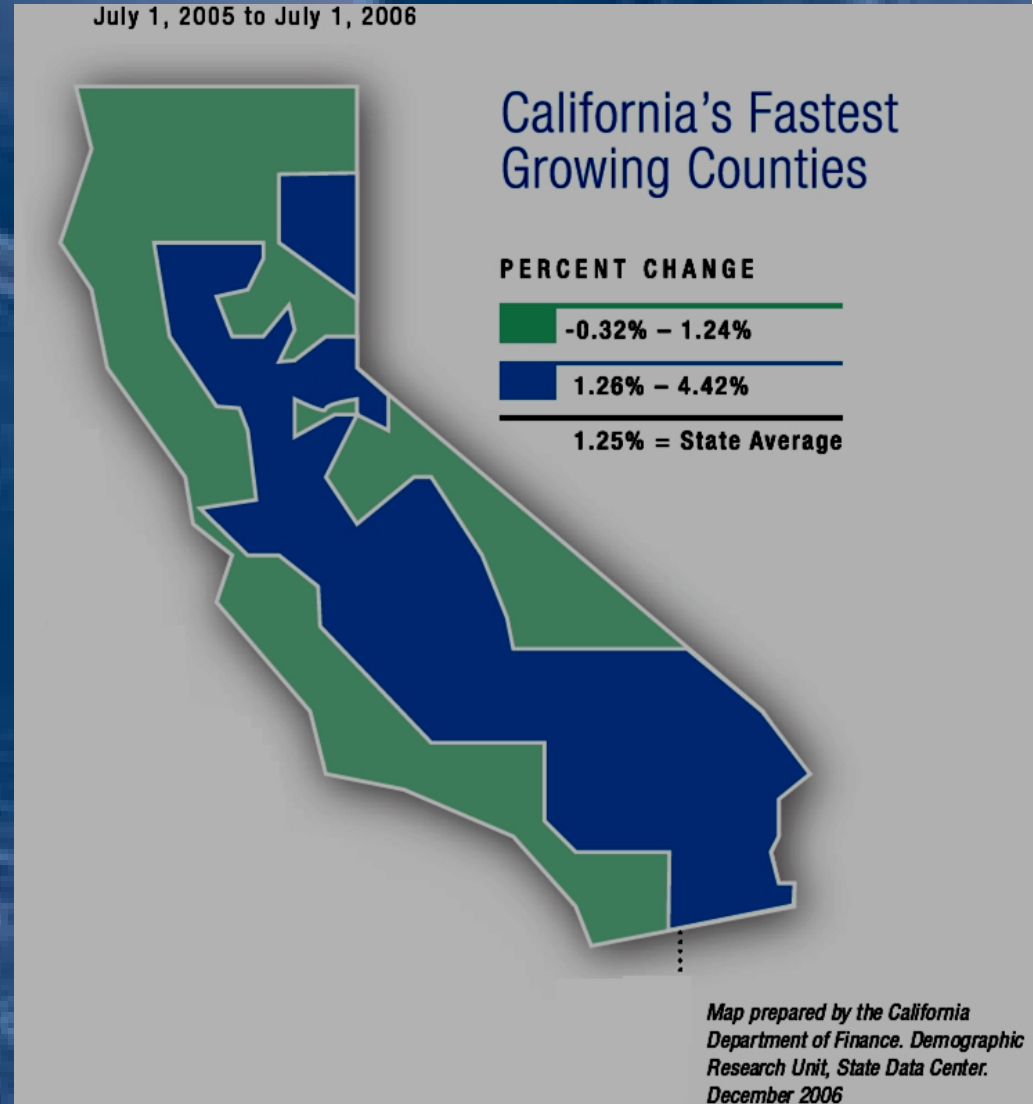


85%



Growth as an Answer

- If we are committed and prepared can the same growth that increased salts provide the solutions?
- If growth does not pay will current residents and Businesses be able to fund the costs?



Market or Non-regulatory Salinity Controls

① Uses the power of economic incentive



② Allows creativity and unique solutions



③ Removes salt at the most efficient locations



④ Requires regulatory oversight



Market Solutions

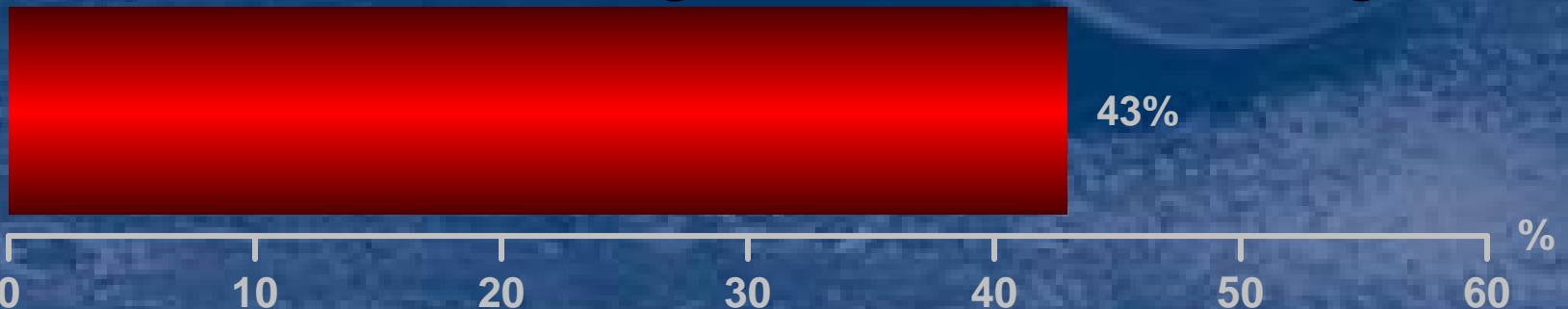


Banking or credits could be a method for financing salt management efforts if the system

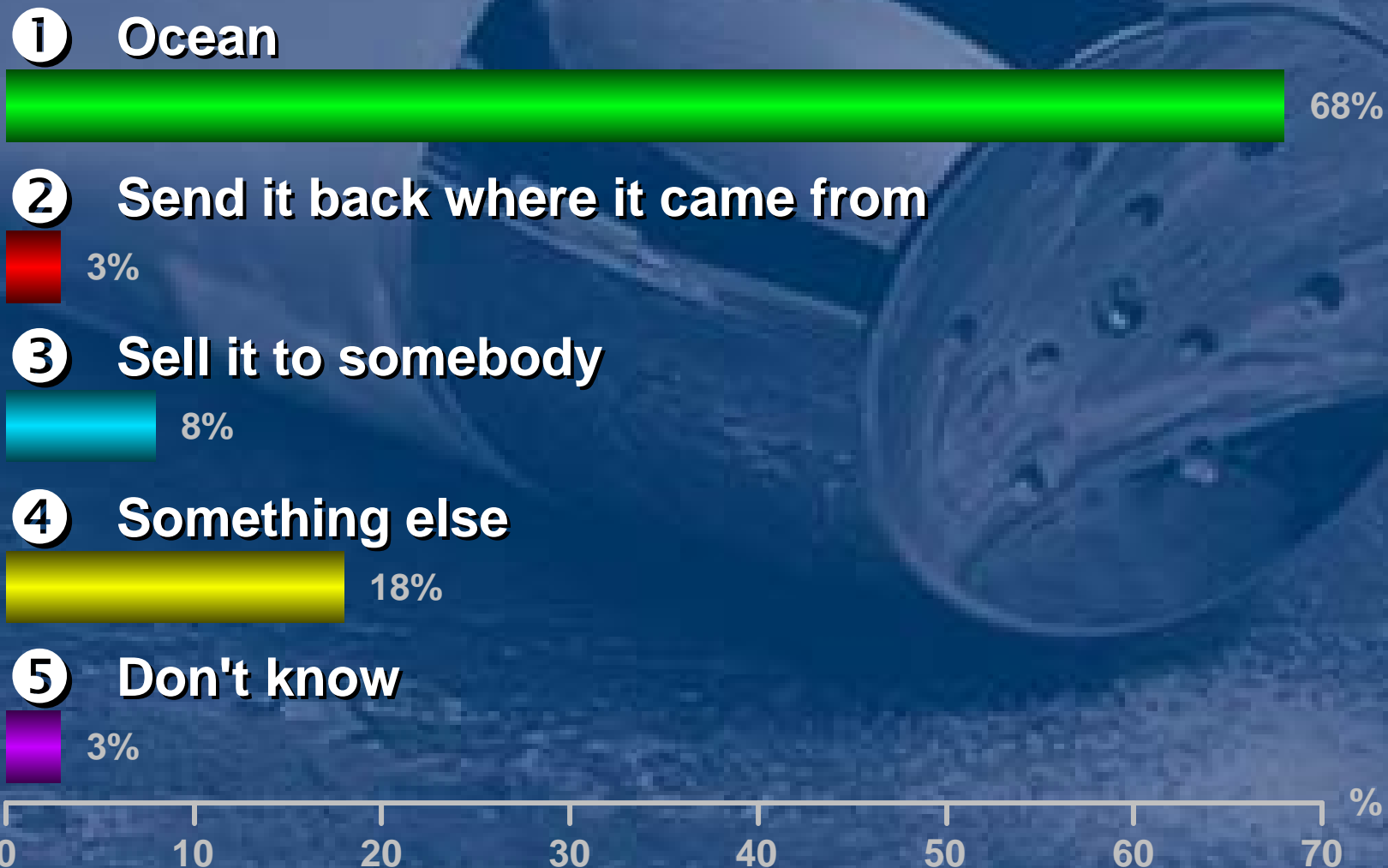
① Could be designed and implemented



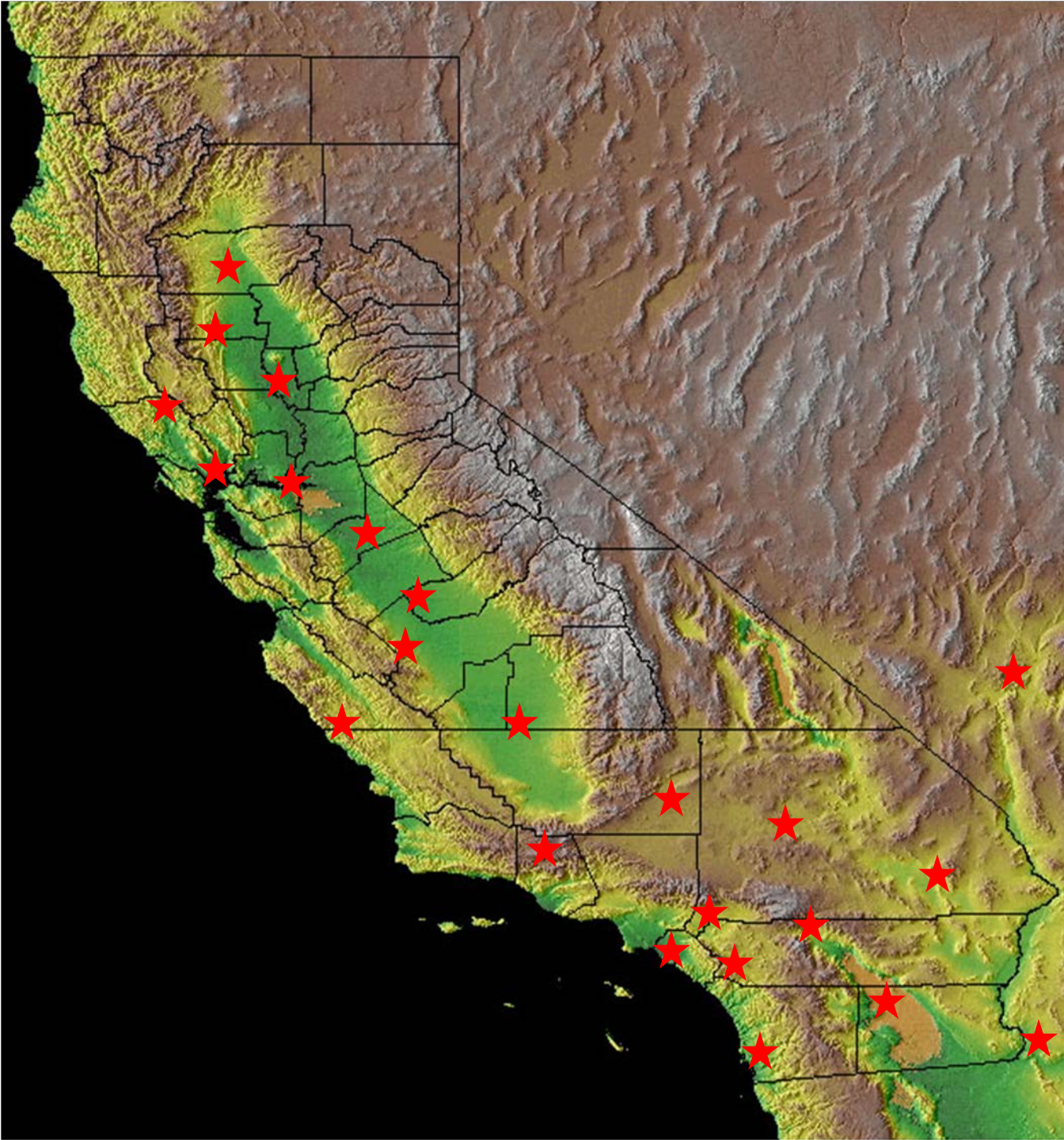
② Results in balancing salt in and out of the region



Where should the salt go?



Statewide SALT Issues



How do you think the cost of salinity management should be allocated?

① Per capita



② Based on salt used or generated



③ Weighted to growth



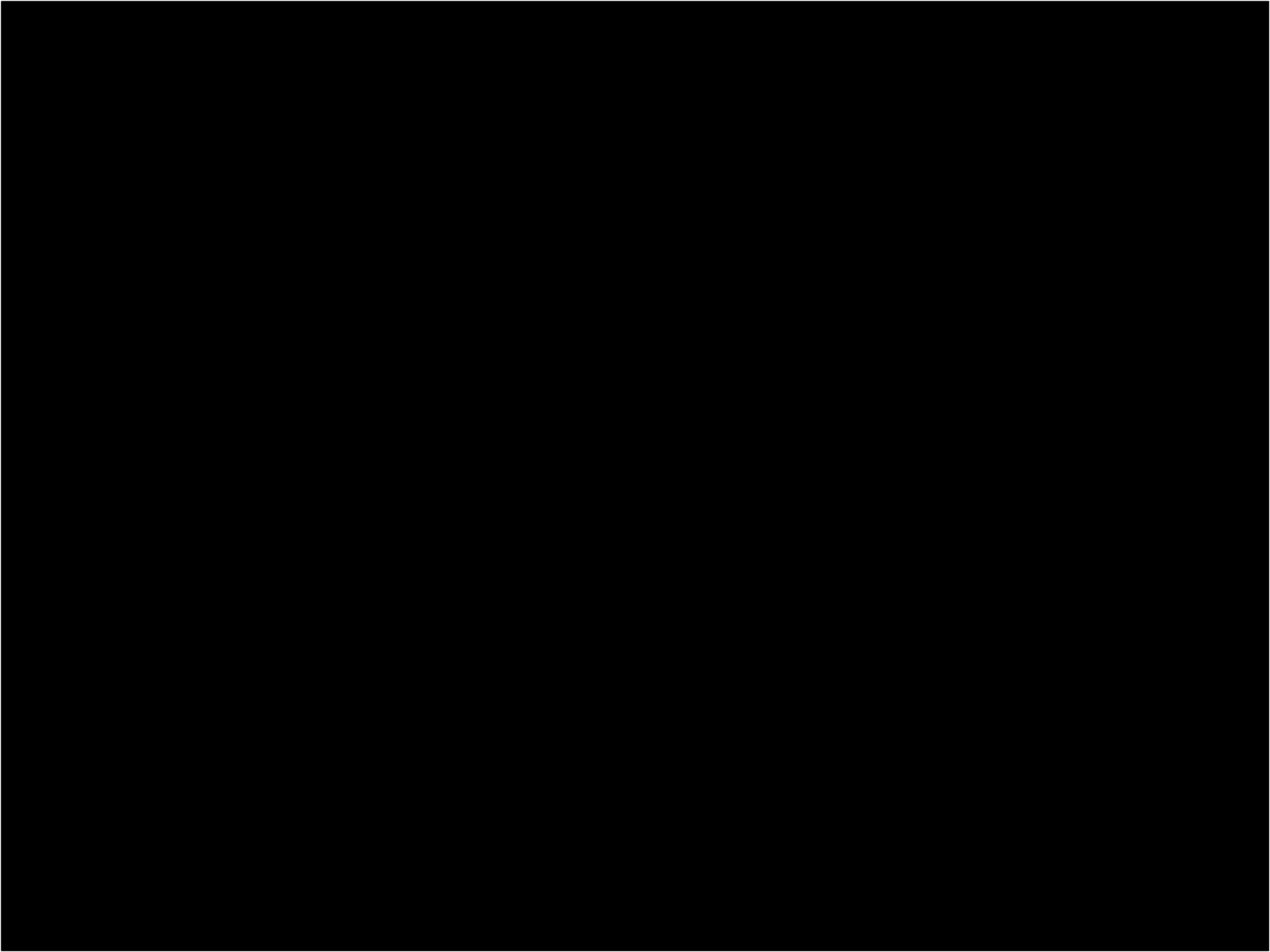
④ Weighted to business

0%

⑤ Weighted to industry

0%





Review and Feedback



How much do you understand about Salinity after this workshop?

① No more than before



② Limited knowledge



③ Working understanding



④ Professional



⑤ Expert



Where do additional salts come from in the CV?

1 Natural sources

0%

2 Water

0%

3 Agriculture

0%

4 Residents

3%

5 All of the above

97%



I think that salinity is a long term chronic problem

① Yes



② No

0%

③ Unless steps are taken



I don't think the issues related to salt are too serious now

① Strongly disagree



② Somewhat disagree



③ It will be a serious issue but it will be in the distant future



④ Technology will likely fix it cheaply so no worries



⑤ Growth and future development will fix it



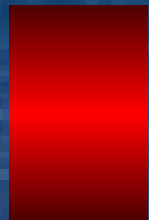
I feel that salinity may impact future growth and economic development of the valley

① True



91%

② False

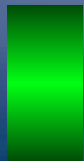


9%

0 10 20 30 40 50 60 70 80 90 100 %

How much did you learn?

① Not much, I was sleeping



3%

② Some, I am aware of the issue now



55%

③ A lot, I learned things I can do or think about



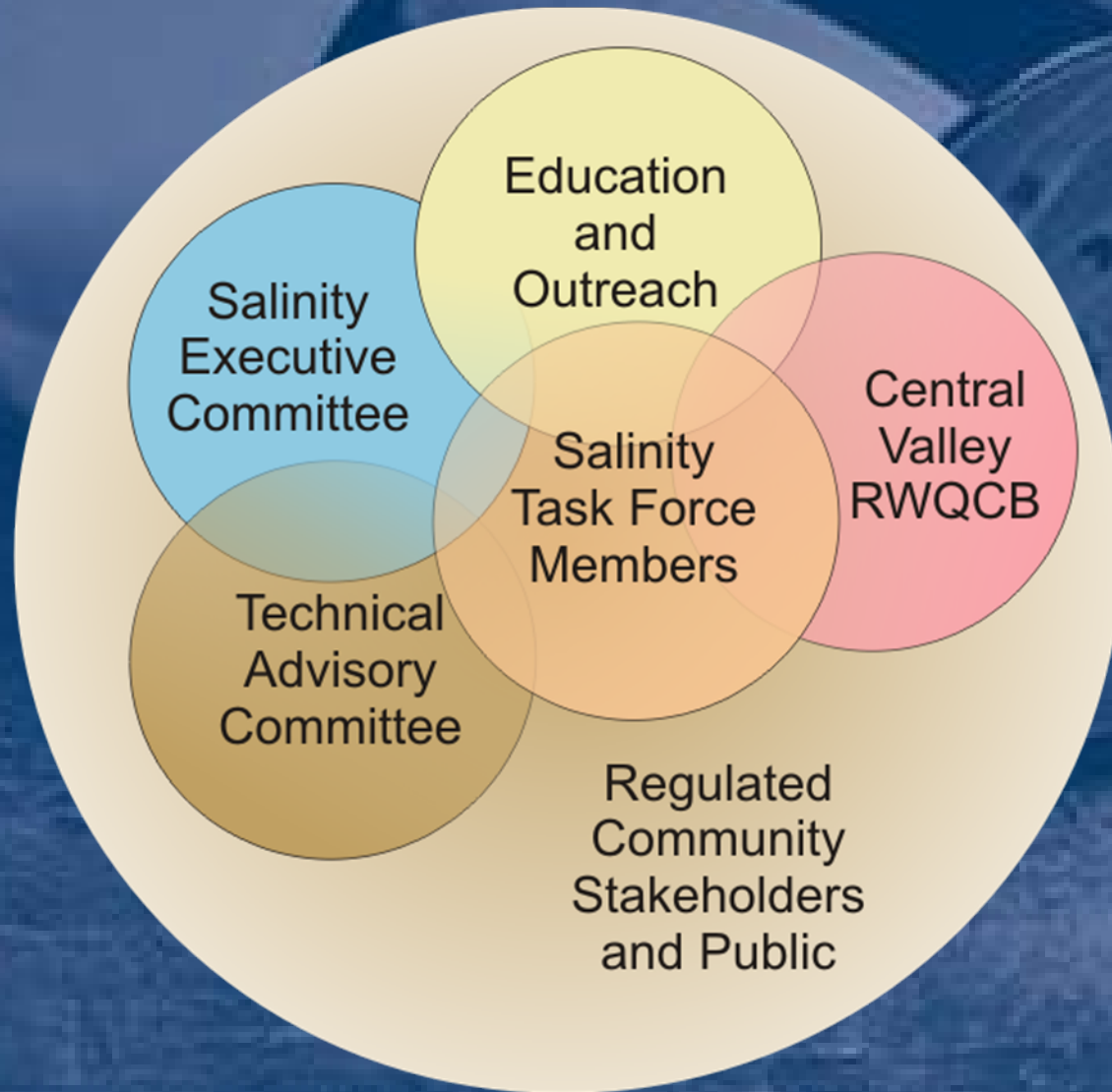
42%



Organizing Dr. Karl Longley



Can New Groups be Organized?



Task Force or Cooperative Stakeholder Group



Acts as Coordinator for Regional Groups



